



Roof Repairs 1 — The Rafters

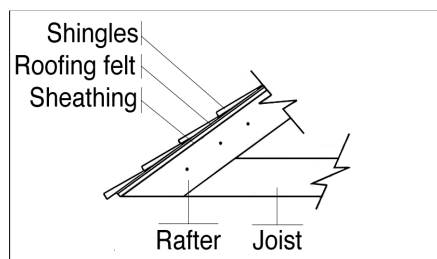


Figure 1.

A roof commonly consists of three layers of materials: sheathing, roofing felt and shingles (see Figure 1).

Sheathing is nailed to rafters before building felt and shingles are applied. If there are broken rafters and ridge beams (boards, poles), they must be repaired first. The strength of the roof depends upon a continuous rafter or truss member extending from one point of fastening to another, and the full distance between fastening points must be replaced, if broken (see Figure 2).

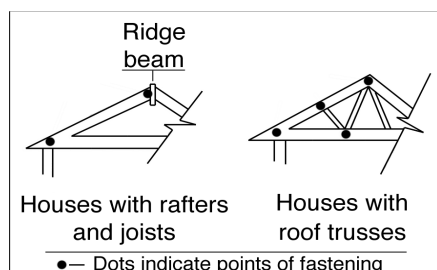


Figure 2.

A good repair may place the new rafter alongside the broken one, nailing them together; on a truss, a replacement board would again be scabbed on, overlapping the two points of fastening.

The size of the area damaged dictates other proper procedures. One or two broken rafters could be repaired with a smaller scab and truss configuration (see Figure 3).

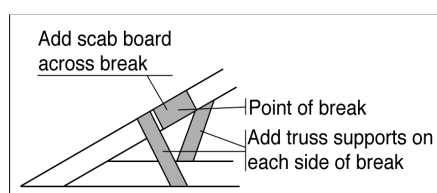


Figure 3.

To further strengthen weakened areas, transfer loads of the roof to undamaged areas by using a 2x6 board nailed beneath rafters extending across the weakened area on to the next two or three undamaged rafters on each side, as in Figure 3.

Due to less-rigid fastenings, broken, severely damaged rafters are seldom as strong after repairs. Further strengthening may be done by adding a prop nailed to the horizontal 2x6 boards with the other end nailed to a joist directly below.

In all cases, the size of wood used for repairs should be the same size (or larger, but not smaller) than the wood broken. A 2x6 should be used to repair or replace a 2x6, and so on.

If your roof is not tied to your walls and it did not shift or blow off during the storm, tie it down now. Place a rafter tie at least every 4 feet and face nail it to the rafter with at least three 8d nails.

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Document DH-058,
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